

Application No. 10/800,131
Filed: March 12, 2004
TC Art Unit: 3644
Confirmation No.: 6931

THE DRAWINGS

Please substitute sheets 8 and 9 enclosed herewith for sheets 8 and 9 of the formal drawings filed on May 18, 2004.

The drawings have been objected to as not showing "fastening means" as claimed in claim 71. A new Fig. 9 is submitted herewith illustrating the recited fastening element. Accordingly, this objection is believed to have been overcome.

Fig. 13 has been included on replacement sheet 9. This figure was inadvertently omitted from the formal drawings filed on May 18, 2004. Fig. 13 is shown on sheet 2/7 of the drawings originally filed with the application. Accordingly, this drawing correction merely corrects a clerical error. No new matter is entered.

Approval and entry of the replacement sheets is respectfully requested.

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REMARKS

Claims 1-33, 35, 39, 40, 64, 65, 67-71, and 74-84 have been rejected under 35 U.S.C. § 103(a) over Brown in view of Schmittle and Vaux. Reconsideration of this rejection is respectfully requested.

Schmittle has been cited for teaching an aircraft recovery system having landing elements with parts that engage complementary parts on a landing area. Brown has been cited for disclosing a helicopter having shoes that are attached to the landing element. Vaux has been cited for teaching that landing pads are well known.

First, the aerial vehicle recovery system of the present invention and the recovery system of Schmittle are different. Claim 1 of the present invention recites a landing pad comprising an upwardly facing capture surface comprising a passive retaining medium, and a shoe configured to be mounted to a landing element of an aerial vehicle. The shoe comprises a passive retaining medium fixed thereto and configured to interface with the passive retaining medium of the landing pad to retain the aerial vehicle directly to the landing pad with no further forward motion component of the aerial vehicle with respect to the landing pad upon affixation. Thus, the landing element of the aerial vehicle presents a medium or surface that is capable of being retained upon contact on the retaining medium of the landing pad.
(Specification, page 8, lines 10-12)

In contrast, Schmittle discloses a recovery system employing an inflatable cushion underneath an aircraft. A fastening material on the cushion adhesively contacts a floating platform. This

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system is suitable for aircraft having a small forward component of motion during landing. Schmittle states: "Landing and stopping of the aircraft then occurs by contacting the deck with the fastening material on the inflatable cushion so that the forward motion of the aircraft is slowed and then arrested." (Col. 4, lines 30-33) Schmittle also states: "The novel combination of utilizing a thrust vectoring fuselage 10 together with an inflatable cushion 12 allows the aircraft to be landed in a confined space such as platform P without damaging or unduly stressing the in-flight equipment on-board or the aircraft itself." (Col. 6, line 65, to col. 7, line 2) (See also col. 5, lines 25-32; col. 6, lines 14-26; col. 7, lines 54-60.) Thus, Schmittle teaches the use of an inflatable cushion that allows some forward motion of the aircraft prior to stopping.

The cushion of Schmittle also provides some flexibility for an aircraft landing on a platform that is moving on high seas. Schmittle states: "The downward facing wall of the inflatable cushion is preferably sufficiently flexible such that it is capable of conforming to the angle of tilt, if any, of the flight deck as may occur during aircraft landing in a high sea state." (Col. 4, lines 48-51) (See also col. 7, lines 3-12.)

Accordingly, even if Schmittle were combined with Brown and Vaux, the presently claimed invention would not result.

Also, the Examiner suggests that it would have been obvious to use complementary engaging parts on the shoes of Brown along with a landing pad of Vaux that has the other complementary engaging parts as taught by Schmittle to allow a helicopter to land safely and quickly. Reconsideration of this position is respectfully requested. Neither Brown nor Vaux relates to a

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vehicle recovery system. Schmittle relates to a recovery system for arresting forward movement of an aircraft that typically includes a forward component of motion during landing, not a helicopter such as shown in Brown. As such, it would not be appropriate to decouple the engaging parts from the cushion of Schmittle and place them on the shoe of Brown. Accordingly, Applicants submit that a more appropriate conclusion from these teachings is that the present invention is not obvious.

The claimed recovery system is particularly advantageous over prior art systems presently in use. The claimed system provides hardware components on the aerial vehicle that are relatively light weight, are aerodynamic, are mechanically simple, and are simple to use (Applicants' specification, page 3, lines 12-15). In contrast, prior art systems employ a 100 pound socket on the undersurface of the aerial vehicle (Applicants' specification, page 1, line 27, to page 2, line 7). There is no teaching or suggestion in the prior art of record to arrive at Applicants' particularly claimed invention. Accordingly, claim 1 and the claims dependent therefrom are believed to be patentable thereover.

Claim 34 has been rejected under § 103(a) over Brown in view of Schmittle and Vaux and further in view of Gerstin. This claim is believed to be patentable for the reasons set forth above with respect to claim 1, and accordingly no further comment regarding this rejection is believed necessary at this time.

Claims 36, 38, 57-63, and 73 have been rejected under § 103(a) over Brown in view of Schmittle and Vaux and further in view of Wellman. These claims are believed to be patentable for the reasons set forth above with respect to claim 1, and

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accordingly no further comment regarding this rejection is believed necessary at this time.

Claims 41-45 have been rejected under § 103(a) over Brown in view of Schmittle and Vaux and further in view of Eftestol. These claims are believed to be patentable for the reasons set forth above with respect to claim 1, and accordingly no further comment regarding this rejection is believed necessary at this time.

In view of the above remarks, all claims are believed to be in condition for allowance, and reconsideration and indication thereof are respectfully requested. The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite prosecution of the present application.

Respectfully submitted,

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